



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

4

D5610-1TRN
Job Sheet 191955



Part No: D5610-1TRN

Job Qty: 1 ea

Part Name: EC130 Aft Crosstube Turning Detail



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 3/13/19

Job Tracking No:

Due Date: 4/12/19

Created By: Linda Lacelle

Type: Stock

Description:

Note: D5610 REV.B IPP REV:A 18.07.04 NEW ISSUE DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		4/12/19	0.00	0.00	Start Up Crosstubes-1		2019-03-26
100	Mori Seiki	1 pcs		4/12/19	4.40	2.38	Mori Seiki TL-40		
110	QC	1 pcs		4/12/19	0.00	0.00	QC2-1		
120	Mori Seiki	1 pcs		4/12/19	0.00	2.38	Mori Seiki TL-40		2019/03/29
130	QC	1 pcs		4/12/19	0.00	0.00	QC2-1		DAS
140	QC	1 pcs		4/12/19	0.00	0.00	QC8		6719-09-89
145	Crosstubes	1 pcs		4/12/19	0.00	0.68	Crosstubes-1		
150	HandFXtube	1 pcs		4/12/19	0.00	1.00	Crosstubes-3		
160	QC	1 pcs		4/12/19	0.00	0.00	QC7-1		
170	Packaging	1 pcs		4/12/19	0.00	0.00	Packaging3-1		
180	QC21-SA	1 Ea		4/12/19	0.00	0.00	QC21		

Part Op 100 - 1- Fill tube with sand & install plugs 2- Face and chamfer both ends as per Folio FC197 3- Turn first taper section on

Descriptions: both side

120 - 1- Turn second taper on both side 2- Scribe part # and batch # using vibrating stylus on the cuff as per Dwg D5610-TRN

145 - GRIND ONLY TRANSITION LINES SMOOTH LONGITUDE WAY.

150 - 1- handfinish X-TUBE INSIDE AND OUT

170 - LOCATION : LG014

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6030-140	Tube, Seamless	1 pcs (1 ea)	90-Start up Operation	5078768

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D6030-140	1	5	0

Part Specifications

Specifications could not be found.

P.T.O.

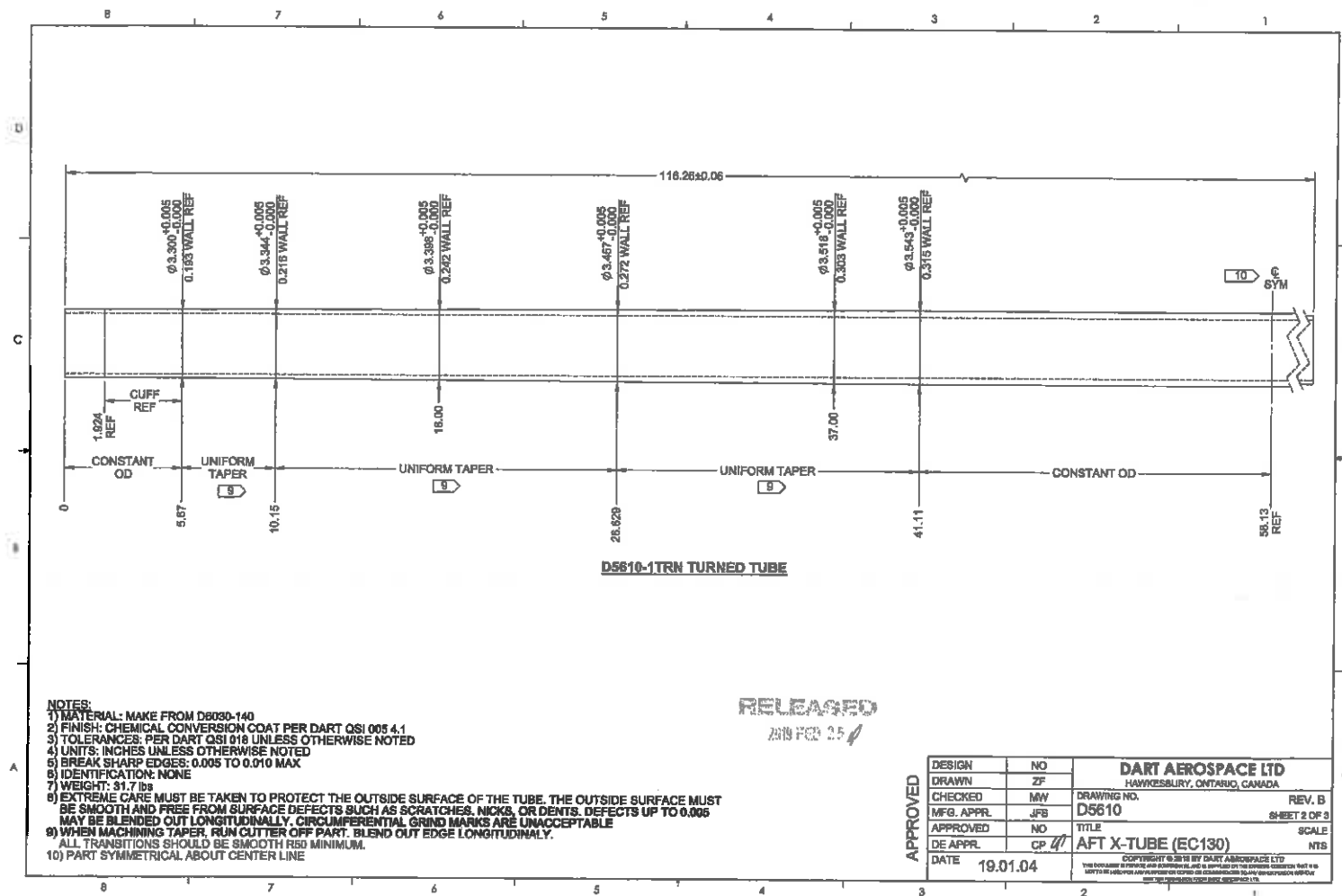
DAS
66
9-89

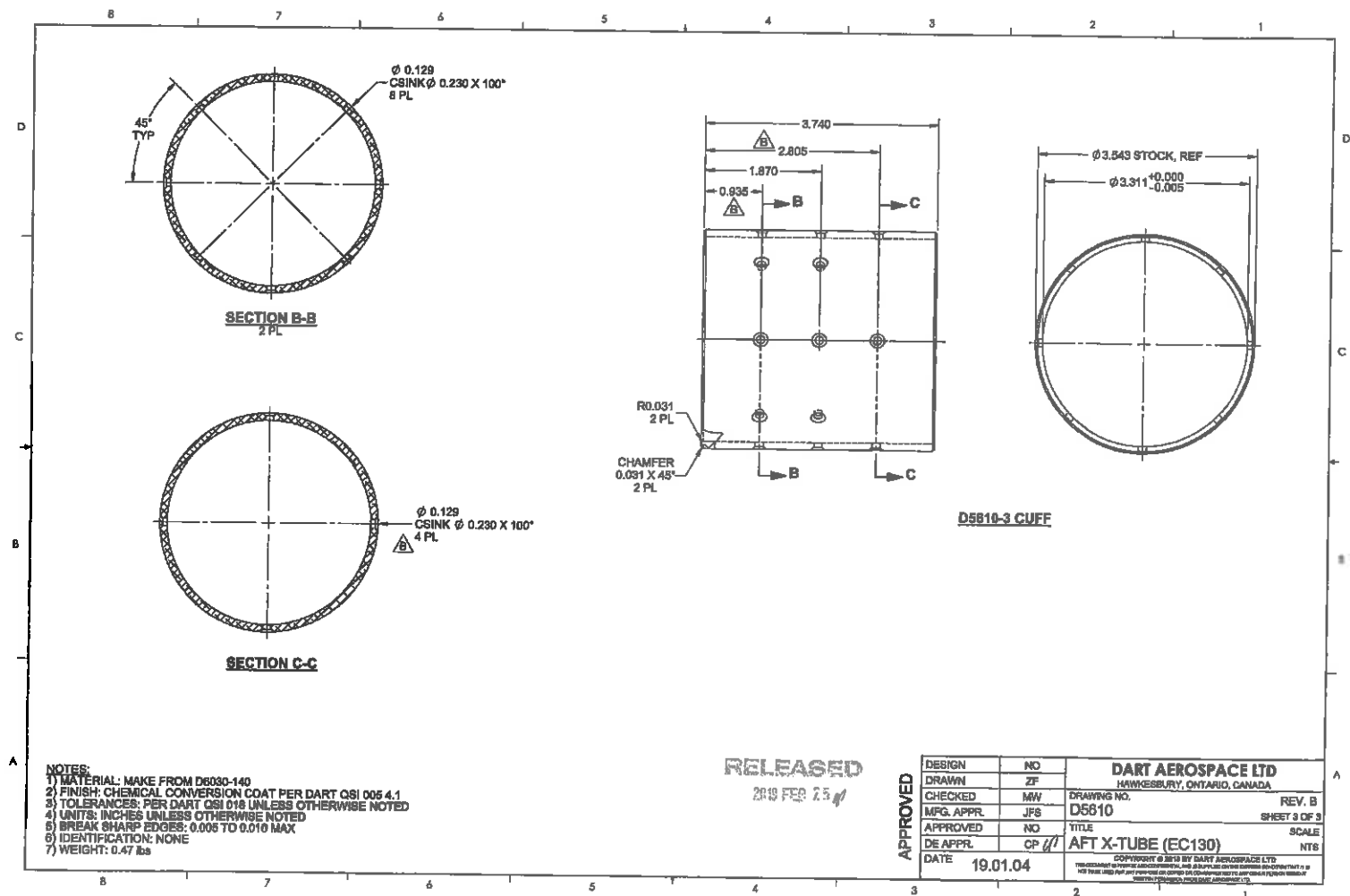
CPAD

RELEASED

2019 FEB 25
BX 14-567

APPROVED





4

DART AEROSPACE LTD		Work Order:	191955
Description: Crosstube Assembly		Part Number:	DS610-1 TRN
Inspection Dwg: 5	Rev: B	Page 1 of 2	

FIRST ARTICLE INSPECTION CHECKLIST

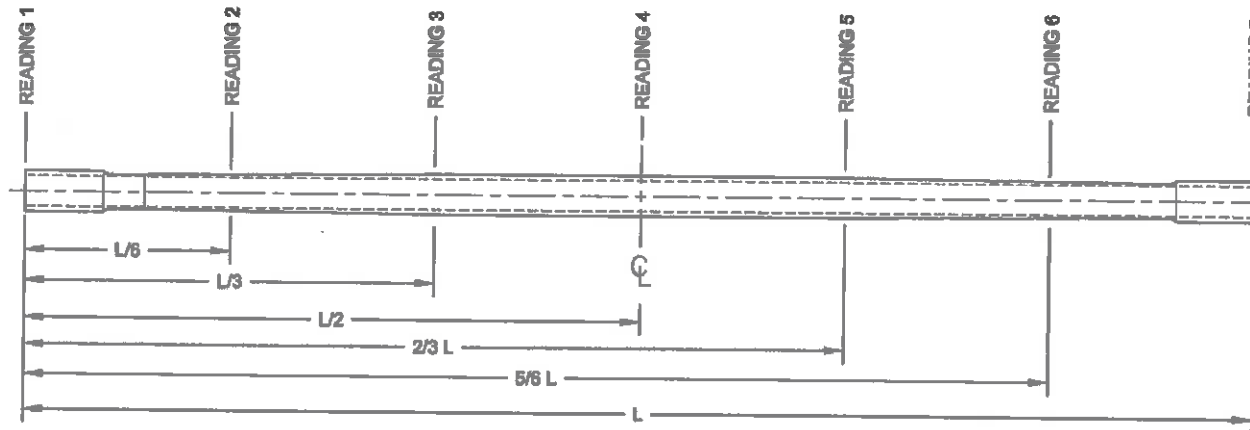
Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A		3.300	✓		CNC-0.5 ↓	
		3.344	✓			
		3.398	✓			
		3.457	✓			
		3.518	✓			
		3.543	✓			
		3.543	✓			
SIDE B		3.300	✓		CNC-0.5 ↓	
		3.344	✓			
		3.398	✓			
		3.457	✓			
		3.518	✓			
		3.543	✓			
		3.543	✓			
		116.26	✓		Tape	

Acceptable
4/19/4/1

④

DART AEROSPACE LTD		Work Order: 191955
Description: Crosstube Assembly		Part Number: D5610-1 TRN
Inspection Dwg: B	Rev: B	Page 2 of 2

WALL THICKNESS MEASUREMENT



Location	WALL THICKNESS MEASUREMENT (IN)				Deviation Δw (max-min)	TOLERANCE
	w1	w2	w3	w4		
READING 1 L= 0"	.210	.194	.186	.199	.024	±0.030
READING 2 L= 19.38	.267	.251	.239	.256	.028	
READING 3 L= 38.75	.330	.315	.295	.317	.035	
READING 4 L= 58.13	.328	.320	.313	.321	.015	
READING 5 L= 77.51	.332	.299	.297	.323	.035	
READING 6 L= 96.88	.271	.244	.235	.265	.036	
READING 7 L= 116.26	.212	.187	.185	.210	.027	

MAX Ecc = Δ0.013
MAX Mean = Δ0.007
Δ0.007

Acceptable per D6030.
INSP 12 9/12/19

Calibration Result

Actual Block Thickness: 100-400

Sitescan 250 Measured Thickness: 100-400

Measured by: 66	Audited by:	Preliminary Approval:
Date: 2019-03-29	Date:	Date:

Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	
C	12.06.01	Wall thickness form added	KJ	

Entered:

Date:

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE



NCR No.

Route update only

Job: _____		DISPOSITION		DEPARTMENT/PROCESS			
Part No. <u>D5610-1 TRN</u>		Rework ☒ Scrap ☐ Use-as-is ☐		Cross tube ☐ Eng. (Non-AW) ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Finishing ☐ Rec/Store/Packaging ☐			
Date: _____		Sequence #: _____		QTY Affected: _____			
Description Work Order Deviation		Disposition					
Corrosion pitting and scratches		Grind to remove pitting. Measure wall thickness and diameters after grinding and polish See engineering for further disposition					
Root Cause		MRB (QS1042) <u>NO</u> 19.05.18					
Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Other/Details: _____		Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐	
				Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread ☐			
				Lead hand / Supervisor		QC / QA Coordinator <u>DAS</u> <u>68</u> <u>9-89</u> <u>JUL 31 2019</u>	

Entered:

Date:

NCR No.

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE



Job: 191955		Route update only	
Part No. D5610-1 TRN			
Date:			
Sequence #:		QTY Affected:	
DISPOSITION		DEPARTMENT/PROCESS	
Rework ☐ Scrap ☒ Use-as-is ☐		Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐	
Description Work Order Deviation		MRB (QS1042)	
Corrosion pitting exceeds allowable		NO. 19.07.31	
Disposition		Completed By	
Scrap		NO. 19.07.31	
		Lead hand / Supervisor	
		QC / QA Coordinator	
		DAS 68	
		9.89	
		JUL 31 2019	
Root Cause		FAULT CATEGORY	
Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread ☐	
Other/Details:			